

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

Moldex Metric, Inc.,

Plaintiff,

v.

3M Company and 3M Innovative Properties
Company,

Defendants.

Case No. 14-cv-1821 (JNE/KMM)
MEMORANDUM
(FILED UNDER SEAL)

Harold A. Barza and Joseph M. Paunovich, Quinn Emanuel Urquhart & Sullivan, LLP, and Katherine A. Moerke, Stinson Leonard Street LLP, appeared for Moldex Metric, Inc.

David J.F. Gross, Nicholas Poli Chan, Helen Chacon, and Chad Drown, Faegre Baker Daniels LLP, appeared for 3M Company and 3M Innovative Properties Company.

Approximately one year after the dismissal of an action for patent infringement brought against Moldex Metric, Inc., by 3M Company and 3M Innovative Properties Company (collectively, 3M), Moldex Metric brought this action against 3M for monopolization and attempted monopolization, malicious prosecution, and unfair competition under the California Business and Professions Code. The action is before the Court on 3M's Motion for Partial Summary Judgment and/or Judgment on the Pleadings and Moldex Metric's Motion for Partial Summary Judgment on Elements of its Sham Litigation and Malicious Prosecution Claims.¹ For the reasons set forth below, the Court (1) grants in part and denies in part 3M's Motion for Partial Summary Judgment and/or

¹ At the motion hearing, the Court denied Moldex Metric's Motion for Summary Judgment on 3M's "Unclean Hands" Affirmative Defense.

Judgment on the Pleadings and (2) grants Moldex Metric's Motion for Partial Summary Judgment on Elements of its Sham Litigation and Malicious Prosecution Claims.

I. BACKGROUND

A. Case No. 12-cv-611

In March 2012, 3M sued Moldex Metric for patent infringement. Complaint for Patent Infringement, *3M Co. v. Moldex-Metric, Inc.*, Case No. 12-cv-611 (D. Minn. Mar. 8, 2012). 3M claimed that Moldex Metric's BattlePlug earplug infringed U.S. Patent No. 6,070,693 (filed Jan. 20, 1999) and that Moldex Metric's M-series earmuffs infringed U.S. Patent No. 7,036,157 (filed June 15, 2000). Moldex Metric denied 3M's infringement claims and asserted counterclaims for declarations of noninfringement and invalidity with respect to each patent.

In November 2012, the parties filed a joint claim construction statement. The parties asked the Court to schedule a claim construction hearing to interpret the following terms in the '693 Patent: (1) "a first end" and "said first . . . end[]"; (2) "a second end" and "second end[]"; (3) "channel extending from said first and second ends to said center of said cylindrical body"; (4) "acoustic filter"; (5) "first acoustic filter and a second acoustic filter," "first and second acoustic filters," and "acoustic filters"; (6) "each of said first and second filters being in communication with one of said first and second ends"; and (7) "cylindrical body." For each term, 3M stated that it did "not believe that construction . . . is necessary" and that, "[i]f the Court believes construction is necessary . . . the plain and ordinary meaning of the term or phrase should apply." Moldex Metric offered a construction of each term. The Court declined to hold a claim construction

hearing. Instead, the Court decided to consider issues of claim construction in connection with dispositive motions or trial.

In January 2013, Moldex Metric moved for summary judgment of noninfringement of the '693 Patent. In February 2013, 3M moved for summary judgment of infringement of the '157 Patent and for summary judgment on Moldex Metric's affirmative defense of governmental immunity. By early March 2013, the motions were fully briefed. They were scheduled to be heard on March 21, 2013.

The parties disputed the issue of infringement of the '693 Patent, which is entitled "Hearing Protector Against Loud Noise." Claim 1 is the patent's sole independent claim:

1. A hearing protector for selectively or automatically reducing noises having intensities up to 190 dB, the hearing protector being intended to be sealingly inserted into an auditory canal of a user, the hearing protector comprising:

a cylindrical body having a center, a first end and a second end;

a channel extending from said first and second ends to said center of said cylindrical body; and

said channel containing a first acoustic filter and a second acoustic filter, each of said first and second filters being in communication with one of said first and second ends.

In its motion for summary judgment of noninfringement of the '693 Patent, Moldex Metric argued that the '693 Patent requires an earplug with two insertable ends, a channel opening to the outside of the earplug at the center of the earplug, and two acoustical filters, and that the BattlePlug lacks each feature.

The parties did not dispute the issue of infringement of the '157 Patent, which is entitled "Method of Producing a Hood, and a Hood Produced According to the Method."

Moldex Metric argued that it was “premature (and unnecessary) to enter an interlocutory order of infringement” because Moldex Metric did “not intend to defend 3M’s claims based on the absence of infringement” of the ’157 Patent. Instead, Moldex Metric maintained that the ’157 Patent is invalid because Moldex Metric invented the accused products years before the application for the patent was filed.

By letter dated March 15, 2013, 3M informed the Court that 3M had provided to Moldex Metric a covenant not to sue with respect to the ’693 Patent. According to 3M, the covenant “effectively ended” all claims related to the ’693 Patent. 3M represented that the parties were discussing the form of appropriate documents for dismissal and that 3M would file a motion under Rule 41 of the Federal Rules of Civil Procedure if the parties failed to agree to the terms of a stipulation. 3M also stated that a hearing on its motion for summary judgment with respect to the ’157 Patent was not necessary, that Moldex Metric wished to be heard on the motion, and that Moldex Metric maintained the hearing should be continued in light of the covenant not to sue with respect to the ’693 Patent. The Court cancelled the March 21 hearing.

After the parties failed to agree to terms of a stipulated dismissal of the claims related to the ’693 Patent, 3M moved to dismiss its claim of infringement of the ’693 Patent with prejudice and to dismiss Moldex Metric’s counterclaims related to the ’693 Patent, as well as the affirmative defense of governmental immunity, without prejudice. Although Moldex Metric did not oppose the motion, it wanted to avoid waiving any rights it may have as a result of having to defend against 3M’s claim of infringement of the ’693 Patent.

By letter dated May 17, 2013, Moldex Metric informed the Court that it had received from 3M a covenant not to sue with respect to the '157 Patent. Two days before 3M's motion to dismiss was scheduled to be heard, the parties filed a letter in which they agreed that 3M's claims with respect to the '157 Patent should be dismissed with prejudice and that Moldex Metric's counterclaims with respect to the '157 Patent should be dismissed without prejudice. They remained unable to agree to terms of a stipulated dismissal. The Court cancelled the hearing, dismissed 3M's infringement claims with prejudice, dismissed Moldex Metric's counterclaims and affirmative defense of governmental immunity without prejudice, and entered judgment. Moldex Metric did not seek an award of attorney fees and costs.

B. Case No. 14-cv-1821

Approximately one year after the dismissal of 3M's suit against Moldex Metric, Moldex Metric brought this action against 3M. A summary of Moldex Metric's operative complaint appears in the following paragraphs.

Nature of trade and commerce

"Non-linear" or "selective attenuation" earplugs purchased and used by the U.S. military are at issue in this case. In the United States, the military purchases the vast majority of non-linear earplugs. The military may purchase them if they meet certain standards. By using a sound channel that has various constrictions and openings for the passage of sound from the exterior to a wearer's ear canal, non-linear earplugs block or attenuate sounds of different amplitude and frequency to differing degrees. Soldiers wear

the earplugs to protect themselves from intense impulse sounds of battlefield explosions while maintaining their ability to communicate by speech with their colleagues.

Another type of hearing protector, an earmuff, is also at issue in this case. An earmuff protects its wearer from the harmful effects of excessive sound energy by covering the exterior of the wearer's ear.

Hearing protectors are sold with a listed noise reduction rating, which “represents the amount of sound attenuation perceived by a test group, when tested under certain required conditions, and adjusted pursuant to the test methodology.” An independent laboratory performs the testing to determine noise reduction ratings for Moldex Metric. 3M personnel perform the testing to determine noise reduction ratings for 3M.

Markets

According to Moldex Metric, 3M's conduct relates to “the following product markets, in the conjunctive or in the alternative”:

(a) a product market for non-linear earplugs that are approved for purchase by the United States military; (b) the product market for non-linear earplugs; and/or (c) the product market for non-linear earplugs that have dual modes of setting, with one mode including a non-linear sound channel and one mode including a fully blocked earplug.

The United States is the geographic market for each product market.

3M's conduct

For many years, 3M has manufactured and sold a non-linear earplug called Combat Arms. Each of the four different versions of Combat Arms uses a sound channel with constrictions and openings to produce a non-linear sound attenuation effect. Such sound channels have been used for decades. Combat Arms earplugs allow the wearer to

set the earplug to a second mode of operation by, for example, inserting a plug into the channel so that the earplugs function like a traditional, fully blocked earplug. This dual mode feature is well-known in the art.

In 2011, Moldex Metric introduced BattlePlug, which is a non-linear, dual-mode earplug. Moldex Metric's BattlePlug provided the first actual competition to 3M's Combat Arms in the market for non-linear earplugs approved for purchase by the military. The U.S. military made its first order of BattlePlug earplugs in May 2011.

3M wanted to block Moldex Metric's entry into the market for non-linear earplugs approved for purchase by the military. To do so, 3M brought an action against Moldex Metric, Case No. 12-cv-611, in which 3M claimed Moldex Metric infringed the '693 Patent.

According to Moldex Metric, 3M's claim of infringement of the '693 Patent was "objectively baseless." Non-linear earplugs that feature a second mode of attenuation with the sound channel blocked were well-known in the art. The '693 Patent claimed an alternative way of achieving two different levels of sound attenuation in a single earplug: a dual-ended earplug, where each end was insertable into the user's ear and each end provided a different level of attenuation. Moldex Metric's BattlePlug does not infringe because, among other reasons, it has only one end that may be inserted into the user's ear. Moldex Metric responded to 3M's claim of infringement of the '693 Patent by immediately informing 3M the BattlePlug could not possibly infringe the patent. 3M nevertheless pursued its claim, seeking injunctive relief to force Moldex Metric from the market.

3M also asserted a claim against Moldex Metric for infringement of the '157 Patent in Case No. 12-cv-611. According to 3M, Moldex Metric's M-series earmuff infringed the patent. Moldex Metric first introduced the M-series earmuff in 2001, almost five years before the '157 Patent issued. "[B]ecause of the length of time it takes to develop a such product," Moldex Metric alleged, "3M knew, or should have known, that Moldex had in fact invented its accused M-series earmuffs well before the priority date of the '157 [P]atent." Moldex Metric responded to 3M's lawsuit by immediately informing 3M of Moldex Metric's prior invention of the M-series earmuffs. 3M nevertheless persisted in its infringement claim.

In January 2013, Moldex Metric moved for summary judgment of noninfringement of the '693 Patent. 3M sent to Moldex Metric a covenant not to sue with respect to the '693 Patent and the BattlePlug one week before the motion hearing. According to Moldex Metric, 3M did so to avoid adjudication of 3M's claim as baseless. 3M asserted that the covenant not to sue deprived the Court of jurisdiction to hear the claims related to the '693 Patent. Later, 3M moved to dismiss with prejudice its claim of infringement of the '693 Patent and to dismiss without prejudice Moldex Metric's counterclaims of invalidity and noninfringement with respect to the '693 Patent. In June 2013, the Court dismissed with prejudice 3M's claim of infringement of the '693 Patent and dismissed without prejudice Moldex Metric's counterclaims of noninfringement and invalidity with respect to the '693 Patent.

After it sent the covenant not to sue with respect to the '693 Patent to Moldex Metric, 3M continued to assert its claim of infringement of the '157 Patent. 3M

demanded extensive discovery that imposed great expense on Moldex Metric. According to Moldex Metric, “3M undertook this campaign of intense discovery in order to impose huge costs on Moldex, so as to attempt to force Moldex to settle the case, and not pursue Moldex’s rights, including those asserted here, all as part of 3M’s efforts to unlawfully obtain and/or maintain monopoly power.” In May 2013, after the close of fact discovery and as Moldex Metric was preparing a motion for summary judgment of invalidity of the ’157 Patent, 3M sent to Moldex Metric a covenant not to sue with respect to the ’157 Patent and the M-series earmuffs. 3M asserted that the covenant not to sue left the Court without jurisdiction to address Moldex Metric’s invalidity contention. After the parties informed the Court of the covenant not to sue, the Court dismissed with prejudice 3M’s claim of infringement of the ’157 Patent and dismissed without prejudice Moldex Metric’s counterclaim of invalidity.

In connection with the dismissal of its infringement claims, 3M sent letters to Moldex Metric in which 3M claimed that it dismissed its claims not because they were without merit but because pursuit of the claims did not make economic sense given the amount of sales of Moldex Metric’s accused products. According to Moldex Metric, 3M’s explanation “was clearly a mere pretext, designed to try to construct a defense to the claims being asserted here.” Because Moldex Metric continues to sell its BattlePlug products to the U.S. military and because 3M continues to try to interfere with those sales, 3M did not dismiss its infringement claims for economic reasons. Instead, Moldex Metric alleged, “3M did so because it knew they were baseless and that it was going to lose the claims on the merits.” 3M’s pursuit of its infringement claims imposed costs and

damages on Moldex Metric in the form of legal fees, costs, and lost employee time of more than \$1 million.

In addition to 3M's alleged misconduct in Case No. 12-cv-611, Moldex Metric claimed that 3M "attempted to use a federal program designed to further the use of disabled workers . . . to exclude Moldex from [the alleged markets] by engaging in misleading assertions concerning BattlePlug and a comparison of it to Combat Arms." Moldex Metric also alleged that 3M uses misleading noise reduction ratings for its hearing protection products. In particular, 3M sells its "dual-ended version of Combat Arms with [a noise reduction rating] of zero in the open or unblocked position, thus suggesting that the open earplug will not in any way impair the sounds one hears from fellow soldiers or combatants in the field." The zero rating is based on tests that do not comply with proper procedures.

II. DISCUSSION

A. 3M's motion

Moldex Metric's amended complaint contains three counts: (1) monopolization and attempted monopolization; (2) malicious prosecution; and (3) unfair competition under California Business and Professions Code § 17200. Insofar as Moldex Metric's claims are based on the assertion that 3M's infringement claims against Moldex Metric were baseless, 3M moved for summary judgment on the ground that the infringement claims were not objectively baseless.

Summary judgment is proper "if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." Fed. R.

Civ. P. 56(a). To support an assertion that a fact cannot be or is genuinely disputed, a party must cite “to particular parts of materials in the record,” show “that the materials cited do not establish the absence or presence of a genuine dispute,” or show “that an adverse party cannot produce admissible evidence to support the fact.” Fed. R. Civ. P. 56(c)(1)(A)-(B). “The court need consider only the cited materials, but it may consider other materials in the record.” Fed. R. Civ. P. 56(c)(3). In determining whether summary judgment is appropriate, a court must view genuinely disputed facts in the light most favorable to the nonmovant, *Ricci v. DeStefano*, 557 U.S. 557, 586 (2009), and draw all justifiable inferences from the evidence in the nonmovant’s favor, *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986).

1. Monopolization and attempted monopolization

It is illegal to monopolize or attempt to monopolize “any part of the trade or commerce among the several States, or with foreign nations.” 15 U.S.C. § 2 (2012). “[A]ny person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor . . . and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney’s fee.” *Id.* § 15(a).

To establish a monopolization claim under Section 2 of the Sherman Act, a plaintiff must prove the defendant “(1) possessed monopoly power in the relevant market and (2) willfully acquired or maintained that power as opposed to gaining that power as a result ‘of a superior product, business acumen, or historical accident.’” *Amerinet, Inc. v. Xerox Corp.*, 972 F.2d 1483, 1490 (8th Cir. 1992) (quoting *United States v. Grinnell*, 384

U.S. 563, 570-71 (1966)). “To establish an attempted monopolization claim under the Sherman Act, a plaintiff must prove: ‘(1) a specific intent by the defendant to control prices or destroy competition; (2) predatory or anticompetitive conduct undertaken by the defendant directed to accomplishing the unlawful purpose; and (3) a dangerous probability of success.’” *HDC Med., Inc. v. Minntech Corp.*, 474 F.3d 543, 549 (8th Cir. 2007) (quoting *Gen. Indus. Corp. v. Hartz Mountain Corp.*, 810 F.2d 795, 801 (8th Cir. 1987)). To recover under § 15, a plaintiff “must prove an ‘injury of the type that the antitrust laws were intended to prevent and that flows from that which makes defendants’ acts unlawful.’” *In re Canadian Import Antitrust Litig.*, 470 F.3d 785, 791 (8th Cir. 2006) (quoting *Brunswick Corp. v. Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 489 (1977)); see *Lexmark Int’l, Inc. v. Static Control Components, Inc.*, 134 S. Ct. 1377, 1386-87 (2014).

“Those who petition government for redress are generally immune from antitrust liability.” *Prof’l Real Estate Investors, Inc. v. Columbia Pictures Indus., Inc.*, 508 U.S. 49, 56 (1993); see *United Mine Workers of Am. v. Pennington*, 381 U.S. 657, 669 (1965); *E. R.R. Presidents Conf. v. Noerr Motor Freight, Inc.*, 365 U.S. 127, 136 (1961). A patentee’s assertion of an infringement claim generally does not give rise to antitrust liability:

A patent owner who brings a suit for infringement, without more, is generally exempt from the antitrust laws for that action; however, the patent owner may be subject to antitrust liability for the anticompetitive effects of that suit if the accused infringer proves either of two conditions. First, the accused infringer may show that the asserted patent was obtained through knowing and willful fraud. Alternatively, the accused infringer may show that the infringement suit was “a mere sham to cover what is actually

nothing more than an attempt to interfere directly with the business relationships of a competitor.”

Q-Pharma, Inc. v. Andrew Jergens Co., 360 F.3d 1295, 1304-05 (Fed. Cir. 2004) (citations omitted) (quoting *Nobelpharma AB v. Implant Innovations, Inc.*, 141 F.3d 1059, 1068 (Fed. Cir. 1998)). “Conduct prohibited under antitrust law includes bringing suit to enforce a patent with knowledge that the patent is invalid or not infringed, and the litigation is conducted for anti-competitive purposes.” *C.R. Bard, Inc. v. M3 Sys., Inc.*, 157 F.3d 1340, 1368 (Fed. Cir. 1998).

In *Noerr*, the Supreme Court “withheld immunity from ‘sham’ activities because ‘application of the Sherman Act would be justified’ when petitioning activity, ‘ostensibly directed toward influencing governmental action, is a mere sham to cover . . . an attempt to interfere directly with the business relationships of a competitor.’” *Prof’l Real Estate Investors*, 508 U.S. at 56 (quoting *Noerr*, 365 U.S. at 144). “Sham” litigation is defined according to objective and subjective elements:

First, the lawsuit must be objectively baseless in the sense that no reasonable litigant could realistically expect success on the merits. If an objective litigant could conclude that the suit is reasonably calculated to elicit a favorable outcome, the suit is immunized under *Noerr*, and an antitrust claim premised on the sham exception must fail. Only if challenged litigation is objectively meritless may a court examine the litigant’s subjective motivation. Under this second part of our definition of sham, the court should focus on whether the baseless lawsuit conceals “an attempt to interfere *directly* with the business relationships of a competitor” through the “use [of] the governmental *process*—as opposed to the *outcome* of that process—as an anticompetitive weapon.” This two-tiered process requires the plaintiff to disprove the challenged lawsuit’s *legal* viability before the court will entertain evidence of the suit’s *economic* viability. Of course, even a plaintiff who defeats the defendant’s claim to *Noerr* immunity by demonstrating both the objective and the subjective components of a sham must still prove a substantive antitrust violation.

Proof of a sham merely deprives the defendant of immunity; it does not relieve the plaintiff of the obligation to establish all other elements of his claim.

Id. at 60-61 (alteration in original) (footnote omitted) (citations omitted). “It is the bringing of the lawsuit that is subjectively and objectively baseless that must be proved.” *Nobelpharma*, 141 F.3d at 1072; *see FilmTec Corp. v. Hydranautics*, 67 F.3d 931, 938 (Fed. Cir. 1995) (“The [Supreme] Court requires an inquiry into the reasonableness of the antitrust defendant’s litigation when filed.”).

“[W]hether conduct in procuring or enforcing a patent is sufficient to strip a patentee of its immunity from the antitrust laws is to be decided as a question of Federal Circuit law. This conclusion applies equally to all antitrust claims premised on the bringing of a patent infringement suit.” *Nobelpharma*, 141 F.3d at 1068 (footnote omitted). “[T]he law of the appropriate regional circuit [applies] to issues involving other elements of antitrust law such as relevant market, market power, damages, etc., as those issues are not unique to patent law” *Id.*

a. The ’693 Patent

1) “Double-ended”

According to 3M, a reasonable litigant could realistically expect success on the merits of its claim that Moldex Metric infringed the ’693 Patent. It asserted a reasonable litigant could have raised reasonable arguments to oppose Moldex Metric’s position that the “end” in claim 1 of the ’693 Patent must be insertable in the wearer’s ear. To address 3M’s arguments, the Court begins with a summary of the law that governs claim construction.

“[T]he construction of a patent, including terms of art within its claim, is exclusively within the province of the court.” *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996). “[T]he claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Words of a claim are generally given their ordinary and customary meaning, which is the meaning that the term would have to a person of ordinary skill in the pertinent art at the time of the invention. *Id.* at 1312-13. “[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* at 1313. Because the meaning of a claim term as understood by persons of skill in the art is often not immediately apparent, a court should look to the sources available to the public that show what a person of skill in the art would have understood the claim language to mean. *Id.* at 1314. “Those sources include ‘the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art.’” *Id.* (quoting *Innova/Pure Water*, 381 F.3d at 1116).

The claims provide substantial guidance as to the meaning of particular claim terms. *Id.* In some cases, the use of a term within the claim provides a firm basis for construing the term. *Id.* Other claims of the patent can be valuable sources of enlightenment as to the meaning of a claim term. *Id.* “Because claim terms are normally

used consistently throughout the patent, the usage of a term in one claim can often illuminate the meaning of the same term in other claims.” *Id.* In addition, differences between claims can help determine the meaning of particular claim terms. *Id.* For example, a dependent claim that adds a particular limitation creates a presumption that the limitation is not present in the independent claim. *Id.* at 1314-15.

The claims do not stand alone, however, and “must be read in view of the specification, of which they are a part.” *Id.* at 1315 (quoting *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996)). The specification is “always highly relevant” to claim construction and usually is dispositive because it is “the single best guide to the meaning of a disputed term.” *Id.*

In addition to the claims and specification, a court should consider the patent’s prosecution history, if it is in evidence. *Id.* at 1317. The prosecution history can “inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

Finally, a court may consider extrinsic evidence, which is “all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Id.* Extrinsic evidence, however, is less significant than the intrinsic record in claim construction. *Id.* Dictionaries and treatises can be useful in claim construction. *Id.* at 1318. Dictionaries, particularly technical dictionaries, “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Id.* Expert testimony may aid a court in a variety of ways: by providing

background on the relevant technology; by explaining how an invention works; and by ensuring that a court’s understanding of technical concepts and terms is consistent with that of a person of ordinary skill in the art. *Id.* Expert testimony that consists of conclusory, unsupported assertions as to the definition of a claim term is not useful, however, and “a court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Id.* (quoting *Key Pharm. v. Hercon Labs. Corp.*, 161 F.3d 709, 716 (Fed. Cir. 1998)); see *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015) (“[I]f a district court resolves a dispute between experts and makes a factual finding that, in general, a certain term of art had a particular meaning to a person of ordinary skill in the art at the time of the invention, the district court must then conduct a legal analysis: whether a skilled artisan would ascribe that same meaning to that term *in the context of the specific patent claim under review.*”).

Specification

Having summarized the law applicable to claim construction, the Court turns to the intrinsic record. Again, claim 1 of the ’693 Patent, the sole independent claim, states:

1. A hearing protector for selectively or automatically reducing noises having intensities up to 190 dB, the hearing protector being intended to be sealingly inserted into an auditory canal of a user, the hearing protector comprising:

a cylindrical body having a center, a first end and a second end;

a channel extending from said first and second ends to said center of said cylindrical body; and

said channel containing a first acoustic filter and a second acoustic filter, each of said first and second filters being in communication with one of said first and second ends.

A summary of the '693 Patent's 16 dependent claims follows.

- Claim 2 depends from claim 1. The “first and second acoustic filters are identical.”
- Claim 3 depends from claim 1. The “first and second acoustic filters are not identical.”
- Claim 4 depends from claim 1. The hearing protector “further [has] a ferrule at each of said first and second ends wherein said ferrules are separate and said cylindrical body forms an internal connector linking said ferrules.”
- Claim 5 depends from claim 4. The internal connector is a single cylinder. The channel forms a right angle and has “a first end of said channel containing said first acoustic filter and terminating at at least one of said ferrules and a second end of said channel terminating in said center of said internal connector.”
- Claim 6 depends from claim 4. The channel in the internal connector “terminates at said center of said internal connector and at said first end and said second end of said internal connector.” The first end contains the first acoustic filter. The second end contains the second acoustic filter.
- Claim 7 depends from claim 6. The first and second acoustic filters are identical.
- Claim 8 depends from claim 6. The first and second acoustic filters are not identical.
- Claim 9 depends from claim 4. The internal connector includes a central cylindrical part, a first cylindrical part, and a second cylindrical part. The diameter of the central cylindrical part is larger than the diameter of the first cylindrical part and the diameter of the second cylindrical part. The diameter of the first cylindrical part and the diameter of the second cylindrical part are larger than the channel. The first cylindrical part contains the first acoustic filter. The second cylindrical part contains the second acoustic filter.

- Claim 10 depends from claim 9. The first and second acoustic filters “are identical.”
- Claim 11 depends from claim 9. The first and second acoustic filters “are not identical.”
- Claim 12 depends from claim 4. The internal connector “has serrations for securing said ferrules to said internal connector.”
- Claim 13 depends from claim 4. The internal connector “has ridges for securing said ferrules to said internal connector.”
- Claim 14 depends from claim 4. The internal connector “has tapered ends.”
- Claim 15 depends from claim 1 and adds the following limitation: “wherein said ferrules each have an essentially hemispherical face having a narrow side, said narrow sides being designed to be inserted into the auditory canal of the user first.”²
- Claim 16 depends from claim 1. The cylindrical body “is provided with annular fins, said fins having a diameter that increases from said first and second ends of said cylindrical body toward said center of said cylindrical body, the hearing protector being wedgingly securable within the auditory canal of the user.”
- Claim 17 depends from claim 1. The acoustic filters “permit non-linear filtration of sound.”

The '693 Patent, which is entitled “Hearing Protector Against Loud Noise,” is a division of application no. 08/994,015, which issued as U.S. Patent No. 5,936,208. The abstract states:

The invention relates to a hearing protector for attenuating, selectively or not, noises that can have an intensity of up to 190 dB, designed to be inserted in sealing fashion into the auditory canal. The hearing protector includes a flexible cylindrical body that has a ferrule at each end. At least one of the two ferrules has a channel that runs from one end of the ferrule to the center of the cylindrical body and contains an acoustic filter. When the two ferrules each contain an acoustic filter, the filters may or may not be identical.

² “Ferrules” does not appear in claim 1.

'693 Patent, at [57].

The Background of the Invention is divided into two parts. First, the Field of Invention states that “[t]he invention relates to hearing protectors, and in particular, the invention relates to a hearing protector to protect against high, continuous or impulsed, noises” and that “[t]he hearing protector can function either in a selective attenuation mode or a maximum attenuation mode.” ’693 Patent col. 1 ll. 10-15. Second, the Description of Related Art begins by describing the “selective attenuation mode” and the “maximum attenuation mode.” “In the selective attenuation mode, sound attenuation is low for a specific range of frequencies and increases for sounds with frequencies above those in the specified range. Selective attenuation is especially effective for the loudest noises.” ’693 Patent col. 1 ll. 17-21. “In the maximum attenuation mode, the hearing protector stops all sounds throughout the frequency range, regardless of their intensity.” ’693 Patent col. 1 ll. 27-29. The Description of Related Art continues by highlighting shortcomings of a hearing protector described in a French patent:

French Patent Publication No.2 676 642, filed in the name of the Applicant, discloses a hearing protector that is not cumbersome and contacts the auditory canal. The protector comprises an elongate flexible body containing selective attenuation means, maximum attenuation means, and a manually controlled plug that makes it possible to choose the attenuation functional mode to be either selective or maximum. However, this device requires careful handling by the user who wants to block the auditory canal himself[.] This manipulation can be done incorrectly, resulting in inefficient blockage in the selective or maximum attenuation modes.

'693 Patent col. 1 ll. 30-41.

The Summary of the Invention immediately follows. It begins by describing goals of “the present invention”:

- “The goal of the present invention is to provide a reliable hearing protector that does not suffer from the disadvantage of user adjustment and permits two configurations for noise attenuation that have different characteristics.” ’693 Patent col. 1 ll. 44-47.
- “Another goal of the present invention is to provide a reliable hearing protector capable of selectively or automatically attenuating noises having intensities up to 190 dB. The hearing protector is intended to be sealingly inserted into the auditory canal of the user. The hearing protector includes a flexible cylindrical body having a ferrule at each end, with at least one of the ferrules having a channel that runs from one end of the ferrule to the center of the body and contains an acoustic filter.” ’693 Patent col. 1 ll. 48-56.

After describing goals of “the present invention,” the Summary of the Invention distinguishes it from well-known art on the basis of the ability to insert either end into the auditory canal:

The hearing protector has two ends, both of which can be inserted into the auditory canal and is referred to as a “double-ended” device. This contrasts with the well-known hearing protector that typically has one end that can be inserted into the auditory canal, while the other end allows the hearing protector to be gripped so the user can position it in the auditory canal. The present invention has two ends, that may or may not be identical, either of which can be inserted into the auditory canal, thus making it possible to choose between two operating modes of attenuation that may or may not be identical.

The device is useful in the fact that it possesses, in the same hearing protector, two configurations that can have different attenuation characteristics, both obtained by simply reversing the direction of the hearing protector, or ear plug, that is inserted into the auditory canal.

’693 Patent col. 1 l. 57 to col. 2 l. 5.

Short descriptions of embodiments immediately follow the distinction of the present invention from the well-known art:

In a preferred embodiment, the two ferrules are separate parts linked by an internal connector. The internal connector may be a single cylinder pierced by a channel containing an acoustic filter, the cylinder [sic] forming a right angle that terminates at a first end of the channel [sic] and a second end at the center of the connector.

The internal connector may also be a single cylinder having a channel that terminates at three locations, such as at the center of the connector or at each end of the connector, with the parts of the channel terminating at the ends containing an acoustic filter that may or may not be identical.

The internal connector may also be composed of three cylindrical parts. The central part may have a channel at its center with a diameter slightly greater than that of the other two parts. The other two parts have a diameter that is essentially equal to or slightly larger than that of the channel. At least one of the two parts is pierced by a channel at its center which contains an acoustic filter and communicates with the channel in the central part. When the two parts each contain an acoustic filter, the filters may or may not be identical.

In an alternate embodiment, the internal connector may have serrations, or ridges, to hold the ferrules in place while in the auditory canal.

In yet another embodiment, the hearing protector may have tapered ends.

Preferably, each ferrule of the hearing protector is provided with an essentially hemispherical face of which the narrower side is intended to be inserted first into the auditory canal.

Advantageously, the body of the hearing protector may be provided with flexible annular fins having a diameter that increases from the inside to the outside of the auditory canal in order to wedgingly secure it in the auditory canal.

The hearing protector makes it possible to perform nonlinear sound filtration by choosing the correct acoustic filter.

'693 Patent col. 2 ll. 6-42.

“The invention [is] described in conjunction with [several] drawings” ’693

Patent col. 2 ll. 45-46. Each drawing, as well as the relevant portion of the Brief

Description of the Drawings, appears below.

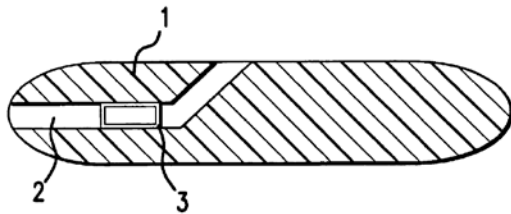


FIG.1

“FIG. 1 is a longitudinal view, in partial section, of a ‘double-ended’ hearing protector according to a preferred embodiment of the present invention[.]”

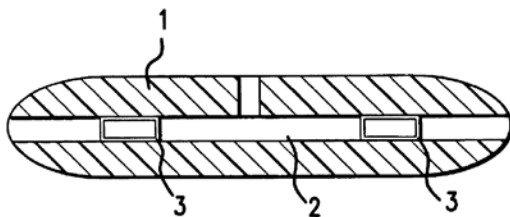


FIG.2

“FIG. 2 is a longitudinal section view of a ‘double-ended’ hearing protector according to a second embodiment of the present invention[.]”

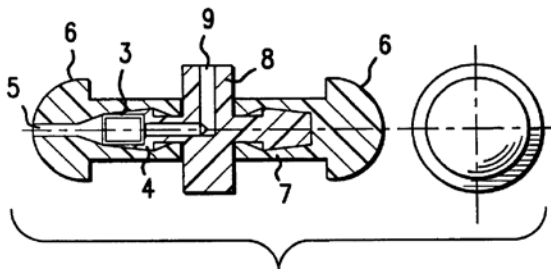


FIG.3

“FIG. 3 is a longitudinal section view of a ‘double-ended’ hearing protector according to a third embodiment of the present invention[.]”

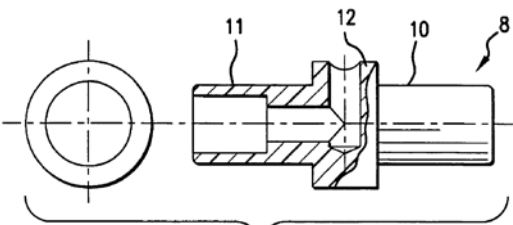


FIG. 4a

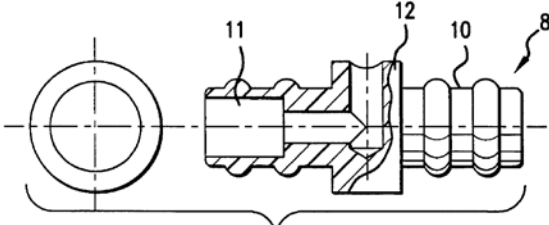


FIG. 4b

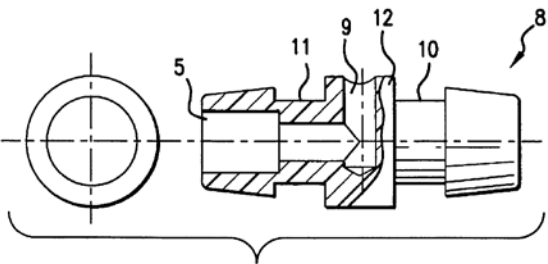


FIG. 4c

“FIGS. 4a-4c are longitudinal views, in partial section, of different configurations of the internal connector that join the two ends of the hearing protector according to the present invention[.]”

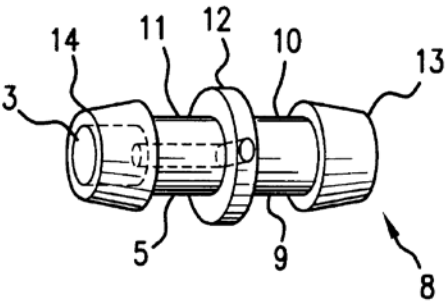


FIG. 5

“FIG. 5 is a perspective view of an internal connector for the two ends of the hearing protector according to an embodiment of the present invention[.]”

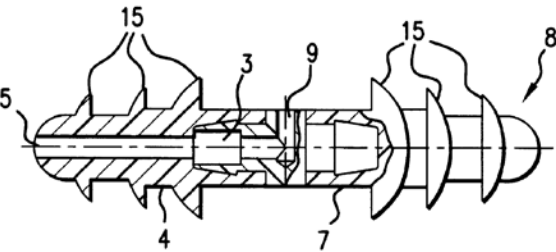


FIG. 6

“FIG. 6 is a longitudinal view, in partial section, of a hearing protector according to a fourth embodiment of the present invention.”

According to the Detailed Description of Preferred Embodiments, Figure 1 “is a longitudinal view, in partial section, of the hearing protector according to one preferred embodiment of the present invention”:

The hearing protector includes a body 1 that is molded to fit in the auditory canal of the user. The body 1 is pierced by a channel 2 that runs from an end of the body 1 and terminates in the center of the body 1. The channel 2 contains an acoustic filter 3 that allows for example the selective and nonlinear filtration of sound. The other end of the body 1 is not perforated and allows maximum attenuation, regardless of the frequency and amplitude of the sound. Ideally, the body 1 has a length between 2 cm and 4 cm and is composed of a flexible material.

’693 Patent col. 3 ll. 3-15.

Figure 2 “is a longitudinal section view of the hearing protector according to a second embodiment of the present invention”:

The hearing protector includes a body 1 pierced by a channel 2 that terminates at each end of the body 1, as well as the center of body 1. The channel 2 also contains an acoustic filter 3 at each end. The filters may or may not be identical.

’693 Patent col. 3 ll. 16-23.

Figure 3, previously described as “double-ended,” depicts a third embodiment:

[T]he hearing protector includes two cylindrical hollow ferrules 4 and 7 and an internal connector 8. The ferrules 4 and 7 are separate pieces that fit into one another and are joined by the internal connector 8 to keep the ferrules 4 and 7 together. Each ferrule 4 and 7 is provided with a substantially hemispherical face 6. The narrower portion of the face 6 is designed to be inserted first into the auditory canal. The substantially hemispherical face 6 ensures tightness between the hearing protector and the auditory canal. As illustrated in FIG. 3, at least one of the two ferrules, in this case, ferrule 4, is pierced by a channel 5 at its center. One of the two ends of the internal connector 8 that contains an acoustic filter 3 is inserted into at least one of the two ferrules 4 and 7. The acoustic filter 3 permits the selective non-linear filtration of sounds. The second ferrule, in this case, ferrule 7, need not be perforated and will allow maximum attenuation regardless of the

frequency and amplitude of the sound. The internal connector 8 is pierced by a second channel 9 that connects at a first end with the first channel 5, which contains an acoustic filter 3, allowing for the use of the acoustic filter 3, and at a second end with the center of the connector 8. The second channel 9 is formed at a right angle to the channel 5.

'693 Patent col. 3 ll. 24-47.

Figures 4a, 4b, 4c, and 5 depict internal connectors. Figure 4a—which, like Figures 4b and 4c, was previously described as an “internal connector that join[s] the two ends”—reveals that “the internal connector 8 may include a single cylinder consisting of three cylindrical parts 10, 11, and 12”:

The central part 12 is pierced by a channel 9 at its center and has a diameter that is slightly larger than that of the other two parts 10 and 11. The two parts 10 and 11 have a diameter that is essentially equal to, but slightly larger than that of channel 5 in order to hold the assembly together. At least one of the two parts 10 and 11 is formed with channel 5, which contains an acoustic filter 3 and communicates with channel 9 in the central part 12, as shown in FIG. 5.

'693 Patent col. 3 ll. 54-63. The internal connector “may have serrations, or ridges,” as shown in Figure 4b, or “it may have tapered ends 13 and 14,” as shown in Figures 4c and 5. '693 Patent col. 64-66.

“[A] fourth embodiment of the present invention” is depicted in Figure 6:

The hearing protector is provided with flexible annular fins 15 on the ferrules 4 and 7 to wedge the hearing protector against the walls of the auditory canal. The fins 15 may have a diameter that increases from the inside to the outside of the auditory canal.

'693 Patent col. 4 ll. 6-12.

Prosecution history

As noted above, the '693 Patent issued from a division of an application that issued as the '208 Patent. The original application contained 33 claims. Claims 1, 2, and 17 of the original application appear below. Claims 1 and 2 were combined into what ultimately issued as claim 1 of the '208 Patent. Claim 17 ultimately issued as claim 1 of the '693 Patent.

1. A hearing protector capable of selectively or automatically attenuating noises having intensities up to 190dB, the hearing protector being intended to be sealingly inserted into an auditory canal of a user, the hearing protector comprising:

a cylindrical body having a center, a first end and a second end;

a channel extending from at least one of said first and said second ends of said body to said center of said body; and

said channel contains an acoustic filter.

2. The hearing protector according to claim 1, further having a ferrule at each of said first and said second ends, wherein said ferrules are separate and said cylindrical body forms an internal connector linking said ferrules.

17. A hearing protector for selectively or automatically reducing noises having intensities up to 190dB, the hearing protector being intended to be sealingly inserted into an auditory canal of a user, the hearing protector comprising:

a cylindrical body having a center, a first end and a second end;

a channel extending from said first and second ends to said center of said cylindrical body; and

said channel containing a first acoustic filter and a second acoustic filter, each of said first and second filters being in communication with one of said first and second ends.

In an office action dated September 8, 1998, the examiner stated that claims 1-33 were “subject to restriction or election requirement.” The examiner indicated that the application contained claims directed to patentably distinct species of the claimed invention and required the applicant “to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.”

The applicant responded by “elect[ing] Species 8” (figure 6): “Claims 1-16 read on the elected species, with at least claim 1 being generic to all species. The election is made with traverse.”

In an office action dated October 20, 1998, the examiner acknowledged the applicant’s “election with traverse of the species of Fig. 6.” The examiner upheld the election requirement and made it final. Next, the examiner rejected claim 1 under 35 U.S.C. § 102(b) “as being clearly anticipated by Killion (4,852,683).” The examiner also rejected claims 1, 15, and 16 under § 102(b) “as being clearly anticipated by Killion et al. (5,113,967).” No explanation of the rejections was provided. The examiner objected to claims 2-14 “as being dependent upon a rejected base claim” and stated they “would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.”

The applicant responded by requesting that claims 2 and 17-33 be canceled without prejudice or disclaimer and that claims 1, 3-4, 7, and 11-14 be amended. The applicant explained the amendments:

The Office Action rejects claims 1 and 15-16 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,133,967 [sic] to Killion et al. Applicant respectfully traverses the rejection. However, in order to expedite prosecution, the allowable subject matter of claim 2 has been incorporated into independent claim 1, thereby rendering the objection moot and placing claim 1 in condition for allowance.

Claims 3-16 depend from claim 1 and are also allowable over the Killion et al. patent for the same reasons claim 1 is allowable, as well as for the additional features they recite. Accordingly, Applicant respectfully requests withdrawal of the rejection.

Although Applicant acknowledges the indication that claims 2-14 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims, in view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejection, allowance of claims 1 and 3-16, and the prompt issuance of a Notice of Allowance are respectfully solicited.

On February 6, 1999, the examiner issued a Notice of Allowability as to claims 1 and 3-16.

On January 20, 1999, the same day that the applicant traversed the rejection and amended the claims that ultimately issued as the '208 Patent, the applicant filed the divisional application that ultimately issued as the '693 Patent. Claim 17 of the original application, quoted above, was ultimately renumbered as claim 1 of the '693 Patent. On January 31, 2000, the examiner issued a Notice of Allowability as to claims 17-33. The examiner did not reject claims 17-33 based on either Killion patent. The earplugs claimed in the Killion patents have one end that may be inserted in a user's ear.

3M's arguments

3M asserted that a reasonable litigant could realistically expect success on the merits of its claim against Moldex Metric for infringement of the '693 Patent. According

to 3M, “Moldex asserts that the broad term ‘end’ in claim 1 was limited beyond any reasonable challenge, to an ‘end’ that is **insertable** in the ear because of two paragraphs in the patent’s specification.” 3M maintained that “a reasonable litigant—relying on the recognized sources for construing the claims, such as the claims themselves, prosecution history, and specification—could oppose Moldex’s theory with nine reasonable arguments that are ‘arguably warranted by existing law’ and have ‘some likelihood of success.’” The nine arguments are: (1) the language of claim 1 itself supports the position that “end” should be given its ordinary meaning; (2) claim differentiation strongly implies that “end” does not mean “insertable end”; (3) the examiner’s actions during prosecution support the ordinary meaning of “end”; (4) the patentee’s actions during prosecution support the ordinary meaning of “end”; (5) the paragraphs of the specification on which Moldex Metric relies, when read in context, do not constitute a disclaimer; (6) the descriptions of “the present invention” do not act as a disclaimer where, as here, other intrinsic evidence suggests otherwise; (7) criticism of prior art does not constitute a disclaimer; (8) claim 1 should not be limited to the embodiments disclosed in the specification; and (9) a qualified expert supports the ordinary meaning of “end.”

The language of claim 1 itself—According to 3M, “a reasonable litigant could argue that the term ‘end’ as used in claim 1 should carry its ordinary meaning and thus not be limited to ‘insertable end.’” 3M maintained that no asserted claim recites an insertable end; that “the term ‘end’ is used in its ordinary sense to refer to two ends of an object, *e.g.*, a cylindrical body”; that the specification plays a more limited role because

the meaning of “end” is plain; and that, based on the language of claim 1 itself, a reasonable litigant could realistically expect success on the merits because the BattlePlug has a first end and a second end under the plain and ordinary meaning of end. The Court rejects 3M’s argument. No reasonable litigant could realistically expect success on the merits of 3M’s claim that Moldex Metric infringed the ’693 Patent based on a claim construction that does not address the patent’s written description and prosecution history. *See, e.g., Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1320 (Fed. Cir. 2016) (“A party is, therefore, ‘not entitled to a claim construction divorced from the context of the written description and prosecution history.’ Ordinary meaning is not something that is determined ‘in a vacuum.’” (citation omitted)), *petition for cert. filed*, 85 U.S.L.W. 3193 (U.S. Oct. 21, 2016) (No. 16-551); *Trs. of Columbia Univ. v. Symantec Corp.*, 811 F.3d 1359, 1363 (Fed. Cir. 2016) (“The only meaning that matters in claim construction is the meaning in the context of the patent.”); *Straight Path IP Grp., Inc. v. Sipnet EU S.R.O.*, 806 F.3d 1356, 1361 (Fed. Cir. 2015) (“Reflecting the distinct but related roles of the claims and specification, the governing approach to claim construction thus maintains claim language’s key (not always decisive) role in claim construction: it stresses the importance of the specification in identifying and resolving genuine uncertainties about claim language, and in stating redefinitions or disavowals, while it rejects a sequenced, dictionary-driven, burden-shifting approach to claim construction.” (citation omitted)); *Thorner v. Sony Comput. Entm’t Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (“The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read

in the context of the specification and prosecution history.”); *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011) (“It is axiomatic that the claim construction process entails more than viewing the claim language in isolation. Claim language must always be read in view of the written description” (citation omitted)); *Phillips*, 415 F.3d at 1313 (“Importantly, the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.”); *Phillips*, 415 F.3d at 1315 (“[C]laims ‘must be read in view of the specification, of which they are a part.’ . . . [T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” (citation omitted)); *Phillips*, 415 F.3d at 1321 (“Properly viewed, the ‘ordinary meaning’ of a claim term is its meaning to the ordinary artisan after reading the entire patent.”).

Claim differentiation—3M argued that “[a] reasonable litigant could argue that claim differentiation ‘strongly implies’ that ‘end’ does not mean ‘insertable end.’” According to 3M, claim 4 adds a limitation—“a ferrule at each of said first and second ends”—that indicates both ends are insertable in the ear. 3M maintained that “[t]he applicant knew how to limit the invention to a device in which both ends could be inserted in the ear—by adding the requirement of ‘ferrules.’”

“[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.”

Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004); *cf. Retractable*

Techs., 653 F.3d at 1305 (“[A]ny presumption created by the doctrine of claim differentiation ‘will be overcome by a contrary construction dictated by the written description or prosecution history.’”). The addition of the “ferrule” limitation in claim 4 raises a presumption that the “ferrule” limitation is not present in claim 1.

The ’693 Patent explicitly states that insertability does not depend on the presence of ferrules. For instance, Figure 1 is “a longitudinal view, in partial section, of a ‘double-ended’ hearing protector according to a preferred embodiment of the present invention.” Figure 2 is “a longitudinal section view of a ‘double-ended’ hearing protector according to a second embodiment of the present invention.” Neither Figure 1 nor Figure 2 includes ferrules. Instead, the body “is molded to fit in the auditory canal of the user.” ’693 Patent col. 3 l. 7. No reasonable litigant could realistically expect success on the merits of 3M’s claim that Moldex Metric infringed the ’693 Patent based on 3M’s “claim differentiation” argument. *Cf. ERBE Elektromedizin GmbH v. Canady Tech. LLC*, 629 F.3d 1278, 1285-86, 1292 (Fed. Cir. 2010) (“claim differentiation” and “surplusage” arguments were non-frivolous even though they were unsuccessful in face of clear and unambiguous disclaimer in prosecution history).

Context—3M asserted that a reasonable litigant could argue that the paragraphs of the Summary of the Invention on which Moldex Metric relies to support Moldex Metric’s assertion that the invention is limited to a “double-ended device,” when read in context, do not constitute a disclaimer. According to 3M, the passage, read in context, “merely describes the preferred embodiment of dependent claim 4, rather than disavowing the broader scope of claim 1.”

As noted above, the Summary of the Invention begins by describing “[t]he goal of the present invention”: “to provide a reliable hearing protector that does not suffer from the disadvantage of user adjustment and permits two configurations for noise attenuation that have different characteristics.” ’693 Patent col. 1 ll. 44-47. In a separate paragraph, it continues by describing “[a]nother goal of the present invention”: “to provide a reliable hearing protector capable of selectively or automatically attenuating noises having intensities up to 190 dB.” ’693 Patent col. 1 ll. 48-50. Two sentences follow that describe “the hearing protector” as “intended to be sealingly inserted into the auditory canal of the user” and as “includ[ing] a flexible cylindrical body having a ferrule at each end, with at least one of the ferrules having a channel that runs from one end of the ferrule to the center of the body and contains an acoustic filter.” ’693 Patent col. 1 ll. 50-56. The next paragraph opens by declaring that “[t]he hearing protector has two ends, both of which can be inserted into the auditory canal and is referred to as a ‘double-ended’ device.” ’693 Patent col. 1 ll. 57-59. A contrast is drawn with “the well-known hearing protector that typically has one end that can be inserted into the auditory canal, while the other end allows the hearing protector to be gripped so the user can position it in the auditory canal.” ’693 Patent col. 1 ll. 59-63. Having distinguished the “double-ended” hearing protector from the “well-known hearing protector,” the paragraph closes not with a reference to the hearing protector but to “[t]he present invention”: “The present invention has two ends, that may or may not be identical, either of which can be inserted into the auditory canal, thus making it possible to choose between two operating modes of attenuation that may or may not be identical.” ’693 Patent col. 1 ll. 63-67. The

subsequent paragraph describes the device's utility: "it possesses, in the same hearing protector, two configurations that can have different attenuation characteristics, both obtained by simply reversing the direction of the hearing protector, or ear plug, that is inserted into the auditory canal." '693 Patent col. 2 ll. 1-5. Descriptions of various embodiments follow, including one that resembles claim 4:

In a preferred embodiment, the two ferrules are separate parts linked by an internal connector. The internal connector may be a single cylinder pierced by a channel containing an acoustic filter, the cylinder [sic] forming a right angle that terminates at a first end of the channel [sic] and a second end at the center of the connector.

The internal connector may also be a single cylinder having a channel that terminates at three locations, such as at the center of the connector or at each end of the connector, with the parts of the channel terminating at the ends containing an acoustic filter that may or may not be identical.

'693 Patent col. 2 ll. 6-17. The Summary of the Invention closes by stating that "[t]he hearing protector makes it possible to perform non-linear sound filtration by choosing the correct filter." '693 Patent col. 2 ll. 41-42.

When read in context, the Summary of the Invention's characterization of "[t]he present invention" as having "two ends, that may or may not be identical, either of which can be inserted into the auditory canal, thus making it possible to choose between two operating modes of attenuation that may or may not be identical," cannot be read to refer to anything but "the present invention." No reasonable litigant could realistically expect success on the merits of 3M's claim that Moldex Metric infringed the '693 Patent based on 3M's "context" argument. *See Luminara Worldwide, LLC v. Liown Elecs. Co.*, 814 F.3d 1343, 1353 (Fed. Cir. 2016).

Descriptions of the “present invention”—3M argued that “[a] reasonable litigant could argue that descriptions of ‘the present invention’ do not act as a disclaimer where, as here, ‘other intrinsic evidence suggests otherwise.’” “It is true that, in some circumstances, a patentee’s consistent reference to a certain limitation or a preferred embodiment as ‘this invention’ or the ‘present invention’ can serve to limit the scope of the entire invention, particularly where no other intrinsic evidence suggests otherwise.” *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1136 (Fed. Cir. 2011). “On the other hand, we have found that use of the phrase ‘present invention’ or ‘this invention’ is not always so limiting, such as where the references to a certain limitation as being the ‘invention’ are not uniform, or where other portions of the intrinsic evidence do not support applying the limitation to the entire patent.” *Id.*

According to 3M, Moldex Metric “places inordinate weight on the phrase ‘the present invention’ in one sentence of the [Summary of the Invention] to argue that this constitutes a clear disclaimer of the ordinary meaning of ‘end.’” Omitting “does not suffer from the disadvantage of user adjustment,” 3M noted that the Summary of the Invention identified “[t]he goal of the present invention” as “provid[ing] a reliable hearing protector that . . . permits two configurations for noise attenuation that have different characteristics.” ’693 Patent col. 1 ll. 44-47. Because certain embodiments are described as having identical filters, 3M reasoned, a reasonable argument could be made that statements about “the present invention” refer only to certain embodiments.

To support its argument, 3M pointed to the description of the embodiment of Figure 2, as well as claims 7 and 10. The embodiment of Figure 2 is described as having

two filters that “may or may not be identical.” ’693 Patent col. 3 ll. 22-23. In dependent claim 7, “said first acoustic filter is identical to said second acoustic filter.” And in dependent claim 10, “said first acoustic filter and said second acoustic filter are identical.”

The “present invention” “permits” two configurations. The description of the embodiment of Figure 2 states that “[t]he filters may or may not be identical.” Claim 8 is identical to claim 7 except that the filters in claim 8 are “not identical.” Claim 11 is identical to claim 10 except that the filters in claim 11 are “not identical.” Nothing in 3M’s argument calls into question the applicability of the statement about “[t]he present invention [having] two ends, that may or may not be identical, either of which can be inserted into the auditory canal, thus making it possible to choose between two operating modes of attenuation that may or may not be identical” to the patent. No reasonable litigant could realistically expect success on the merits of 3M’s claim that Moldex Metric infringed the ’693 Patent based on 3M’s “descriptions of the ‘present invention’” argument.

Criticism of prior art—3M maintained that “[a] reasonable litigant could argue that criticism of prior art does not constitute a disclaimer.” Pointing to its “context” and “descriptions of the ‘present invention’” arguments, 3M asserted that “it is reasonable to argue” that the criticism of the “well-known” hearing protector in the Summary of the Invention “contrasts the preferred embodiment of dependent claim 4 (with ferrules) with devices that have only one insertable end.”

“In general, statements about the difficulties and failures in the prior art, without more, do not act to disclaim claim scope.” *Retractable Techs.*, 653 F.3d at 1306; *see Epistar Corp. v. Int’l Trade Comm’n*, 566 F.3d 1321, 1336 (Fed. Cir. 2009) (“[D]isparaging comments alone do not necessarily show a manifest or express disavowal of the criticized subject matter.”). As noted above, the ’693 Patent went far beyond mere criticism of the prior art. No reasonable litigant could realistically expect success on the merits of 3M’s claim that Moldex Metric infringed the ’693 Patent based on 3M’s “criticism of prior art” argument.

Embodiments—According to 3M, “[a] reasonable litigant could argue that claim 1 should not be limited to the embodiments disclosed in the specification.” 3M asserted that “[a]ny suggestion that there is a clear disclaimer because the specification does not describe an embodiment with one insertable end is a non-starter.” It cited the Federal Circuit’s rejection of “the contention that if a patent describes only a single embodiment, the claims of the patent must be construed as being limited to that embodiment.” *Phillips*, 415 F.3d at 1323; *see GE Lighting Solutions, LLC v. AgiLight, Inc.*, 750 F.3d 1304, 1309 (Fed. Cir. 2014) (“A patent that discloses only one embodiment is not necessarily limited to that embodiment. ‘[I]t is improper to read limitations from a preferred embodiment described in the specification—even if it is the only embodiment—into the claims absent a clear indication in the intrinsic record that the patentee intended the claims to be so limited.’”). This argument is detached from the ’693 Patent’s intrinsic record. No reasonable litigant could realistically expect success on

the merits of 3M's claim that Moldex Metric infringed the '693 Patent based on 3M's "embodiments" argument.

Prosecution history—3M asserted that “[a] reasonable litigant could argue that the PTO examiner’s actions during prosecution support the ordinary meaning of ‘end’” and that “[a] reasonable litigant could argue that the patentee’s actions during prosecution support the ordinary meaning of ‘end.’” 3M noted that the examiner rejected original claim 1 of the application that ultimately issued as the '208 Patent as clearly anticipated by the Killion '683 patent and the Killion '967 patent. Because each earplug taught by the Killion patents features one insertable end, 3M argued, the examiner understood original claim 1 to cover earplugs with only one insertable end. 3M also noted that the patentee did not “argue that ‘end’ means ‘insertable end’” in response to the examiner’s rejection. Instead, the patentee amended original claim 1 by adding the “ferrule” limitation. Because claim 1 of the '693 Patent contains the same language as the original claim 1—“a cylindrical body having a center, a first end and a second end”—3M asserted that a reasonable litigant could argue the prosecution history indicates the limitation “a first end and a second end” is not limited to two insertable ends.

“In construing the claims in view of prosecution history or in deciding whether to estop a patentee from asserting a certain range of equivalents, a court may only explore ‘the reason (right or wrong) for the objection and the manner in which the amendment addressed and avoided the objection.’” *Regents of the Univ. of California v. Eli Lilly & Co.*, 119 F.3d 1559, 1572 n.6 (Fed. Cir. 1997) (quoting *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 33 n.7 (1997)). Without explanation, the examiner

rejected original claim 1 as anticipated by the two Killion patents. Addressing the rejection based on the Killion '967 patent, the applicant "traverse[d] the rejection." Nevertheless, "in order the expedite prosecution," the applicant incorporated the allowable subject matter of claim 2 into claim 1, "thereby rendering the rejection moot." Given the specification, the traverse of the rejection, and the amendment to render the rejection moot, no reasonable litigant could realistically expect success on the merits of 3M's claim that Moldex Metric infringed the '693 Patent based on 3M's "prosecution history" argument. *See 3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1332 (Fed. Cir. 2013) ("While the examiner's statements could make this a close question, we are guided by legal principles dictating that we rest on the statements made by the patentee over conflicting statements of an examiner because it is the patentee's words that define the claim."); *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1373-74 (Fed. Cir. 2003) ("An applicant's silence in response to an examiner's characterization of a claim does not reflect the applicant's clear and unmistakable acquiescence to that characterization if the claim is eventually allowed on grounds unrelated to the examiner's unrebutted characterization."); *Biogen, Inc. v. Berlex Labs., Inc.*, 318 F.3d 1132, 1140 (Fed. Cir. 2003) ("Representations during prosecution cannot enlarge the content of the specification . . ."); *cf. Insta-Foam Prods., Inc. v. Universal Foam Sys., Inc.*, 906 F.2d 698, 703-04 (Fed. Cir. 1990) ("During prosecution, the patent applicant chose to avoid the import of the examiner's rejection by, in effect, rewriting unrejected application claim 13 in an independent form and by making each of the other pending claims dependent thereon. Because the applicant did not comment on

the merits of the examiner’s rejection, there are no arguments or concessions which could be a basis for estopping Insta-Foam from obtaining the recovery it seeks.” (footnote omitted)).³

Expert—3M asserted that “[a] reasonable litigant could argue that a qualified expert supports the ordinary meaning of ‘end.’” It cited an expert report prepared in this litigation. “[A] court should discount any expert testimony ‘that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent.’” *Phillips*, 415 F.3d at 1318 (quoting *Key Pharm.*, 161 F.3d at 716). In light of the intrinsic record, no reasonable litigant could realistically expect success on the merits of 3M’s claim that Moldex Metric infringed the ’693 Patent based on 3M’s “expert” argument.

In short, it is undisputed that Moldex Metric’s BattlePlug has only one end that may be inserted into the user’s ear. No reasonable litigant could realistically expect success on the merits of 3M’s claim that Moldex Metric infringed the ’693 Patent because the ’693 Patent claims a “double-ended” device.

³ 3M cited *Ventana Medical Systems, Inc. v. Biogenex Laboratories, Inc.*, 473 F.3d 1173 (Fed. Cir. 2006), in its “prosecution history” argument. In *Ventana*, the Federal Circuit concluded that prosecution disclaimer did not apply because allegedly disclaiming statements were made with respect to claim language that differed from claim language in a descendant patent. 473 F.3d at 1182. The court of appeals concluded that the prosecution history of the descendant patent supported a broad construction of the disputed claim term. *Id.* at 1182-83. That construction was consistent with the specification. *Id.* at 1180 (“In this case, Ventana argues that there is nothing in the record to suggest that a person of ordinary skill in the art would interpret the disclosure and claims of the ’861 patent to mean that the term ‘dispensing’ is limited to ‘direct dispensing.’ We agree.”).

2) Channel, filter, and invalidity

Moldex Metric advanced other arguments to support its contention that 3M's assertion of the '693 Patent in Case No. 12-cv-611 against it was objectively baseless: (1) the BattlePlug does not have a channel with a center opening; (2) the BattlePlug does not have two filters; and (3) the claim constructions required for the BattlePlug to infringe would invalidate the '693 Patent. According to 3M, Moldex Metric neither pleaded nor timely disclosed these arguments. 3M also asserted a reasonable litigant could oppose them. Moldex Metric disputed 3M's arguments. Having concluded that 3M's assertion of the '693 Patent against Moldex Metric was objectively baseless for the reasons set forth above, the Court declines to consider the parties' "channel," "filter," and "invalidity" arguments.

b. The '157 Patent

According to 3M, a reasonable litigant could realistically expect success on the merits of its claim that Moldex Metric infringed the '157 Patent.⁴ 3M noted that Moldex Metric did not assert a noninfringement defense. Instead, Moldex Metric asserted the '157 Patent was invalid because Moldex Metric invented the accused products before the priority date of the '157 Patent. 3M maintained that a reasonable litigant could realistically expect to succeed in the face of Moldex Metric's "prior invention" defense and that Moldex Metric does not have clear and convincing evidence of a prior invention. Moldex Metric asserted that a genuine issue of material fact exists with respect to

⁴ 3M asserted claims 7, 14, 20, 21, 33, 47, 72, 86, and 106 of the '157 Patent against Moldex Metric.

whether 3M knew or recklessly ignored that Moldex Metric was the prior inventor of the '157 Patent.

“Conduct prohibited under antitrust law includes bringing suit to enforce a patent with knowledge that the patent is invalid or not infringed, and the litigation is conducted for anti-competitive purposes.” *C.R. Bard*, 157 F.3d at 1368. “Given the presumption of patent validity and the burden on the patent challenger to prove invalidity by clear and convincing evidence, it will be a rare case in which a patentee’s assertion of its patent in the face of a claim of invalidity will be so unreasonable as to support a claim that the patentee has engaged in sham litigation.” *Tyco Healthcare Grp. LP v. Mut. Pharm. Co.*, 762 F.3d 1338, 1345 (Fed. Cir. 2014).

“A person shall be entitled to a patent unless . . . before such person’s invention thereof, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it.” 35 U.S.C. § 102(g)(2) (2006).⁵ “Although section 102(g) initially was designed for determining priority of invention in interference proceedings, it is settled that the section has ‘independent significance as a basis for prior art outside of the interference context.’” *Solvay S.A. v. Honeywell Int’l Inc.*, 742 F.3d 998, 1000 (Fed. Cir. 2014) (quoting *Thomson, S.A. v. Quixote Corp.*, 166 F.3d 1172, 1175 n.3 (Fed. Cir. 1999)). Section 102(g) “may be asserted as a basis for invalidating a patent in defense to an infringement suit. . . . [I]f a patentee’s invention has been made by another, prior inventor who has not abandoned, suppressed, or concealed the invention,

⁵ The Court refers to § 102 as it existed before the Leahy–Smith America Invents Act. See *Solvay S.A. v. Honeywell Int’l Inc.*, 742 F.3d 998, 1000 n.1 (Fed. Cir. 2014).

§ 102(g) will invalidate that patent.” *Apotex USA, Inc. v. Merck & Co.*, 254 F.3d 1031, 1035 (Fed. Cir. 2001); *see Solvay*, 742 F.3d at 1000. “Making the invention requires conception and reduction to practice. While conception is the ‘formation, in the mind of the inventor, of a definite and permanent idea of a complete and operative invention,’ reduction to practice ‘requires that the claimed invention work for its intended purpose.’” *Solvay*, 742 F.3d at 1000 (quoting *Solvay S.A. v. Honeywell Int’l, Inc.*, 622 F.3d 1367, 1376 (Fed. Cir. 2010)).

3M asserted that, “given the complete lack of evidence that, at the time [Case No. 12-cv-611] was filed, anyone knew of Moldex’s secret alleged prior invention,” a reasonable litigant could realistically expect success on the merits. 3M pointed to Moldex Metric’s responses to requests for admissions in which Moldex Metric admitted that, before the commencement of Case No. 12-cv-611, (1) it did not publicly state the date it conceived of the accused earmuffs; (2) it did not publicly state the date it reduced to practice the accused earmuffs; (3) it did not publicly disclose documents showing the alleged conception date of the accused earmuffs; (4) it did not publicly disclose documents showing the date of the alleged reduction to practice of the accused earmuffs; (5) it did not publicly disclose documents showing it was reasonably diligent in the time between conception and reduction to practice of the accused earmuffs; (6) it did not provide to 3M documents showing a conception of the accused earmuffs; (7) it did not provide to 3M documents showing a reduction to practice of the accused earmuffs; and (8) it did not provide to 3M documents showing reasonable diligence in the time between conception and reduction to practice of the accused earmuffs.

Moldex Metric responded that a reasonable jury could find that “3M knew or recklessly ignored specific facts that would prevent a litigant from reasonably expecting to prevail.” Moldex Metric asserted the following facts were known to 3M before the commencement of Case No. 12-cv-611: (1) Moldex Metric displayed the accused earmuffs at trade shows as early as 2001; (2) Moldex Metric sold the accused earmuffs as early as 2002; (3) 3M confirmed in 2002 that the accused earmuffs were made of two different overmolded plastic materials; (4) 3M took four years to develop overmolded earmuffs that 3M claims practice the ’157 Patent; and (5) 3M was unable to obtain a priority date earlier than July 8, 1999. Thus, according to Moldex Metric, 3M knew the ’157 Patent was invalid when it commenced Case No. 12-cv-611 unless Moldex Metric was able to develop, test, and bring to market the accused earmuffs in half the time it took 3M to develop a similar product.

In addition, Moldex Metric asserted that it produced documents to 3M in September and November 2012 that demonstrated Moldex Metric had conceived of and reduced to practice the accused earmuffs before July 8, 1999. Notwithstanding the document production, Moldex Metric argued, 3M persisted in its assertion of the ’157 Patent until it issued a covenant not to sue to Moldex Metric in May 2013. The circumstances surrounding 3M’s dismissal of the claim are, according to Moldex Metric, further evidence of the objective baselessness of the claim.

Viewing the record in the light most favorable to Moldex Metric, the Court concludes that a reasonable litigant could realistically expect success on the merits of 3M’s claim against Moldex Metric for infringement of the ’157 Patent. Before 3M

commenced Case No. 12-cv-611, no information was available to it or the public that demonstrated Moldex Metric's conception or reduction to practice of the accused earmuffs before the '157 Patent's priority date. A reasonable litigant could realistically expect success on the merits notwithstanding the appearance of the accused products at a trade show and on the market years after the '157 Patent's priority date. Setting aside *FilmTec* and *Nobelpharma*, the Court does not discern in the documents produced by Moldex Metric evidence of conception and reduction to practice of the accused earmuffs before the '157 Patent's priority date that demonstrates no reasonable litigant could realistically expect success on the merits. The circumstances surrounding the dismissal of the claim are insufficient to demonstrate the objective baselessness of 3M's assertion of the '157 Patent against Moldex Metric. The Court grants 3M's motion insofar as Moldex Metric asserted an antitrust claim based on 3M's initiation or continuation of the claim for infringement of the '157 Patent.

2. State-law claims

Insofar as Moldex Metric's claims are based on 3M's assertion of the '693 Patent in Case No. 12-cv-611, the Court denies 3M's motion for essentially the same reasons stated above. *See Porous Media Corp. v. Pall Corp.*, 186 F.3d 1077, 1079-80 & n.4 (8th Cir. 1999); *Ludwig v. Superior Court*, 43 Cal. Rptr. 2d 350, 360 n.17 (Cal. Ct. App. 1995). Insofar as Moldex Metric's claims are based on 3M's assertion of the '157 Patent in Case No. 12-cv-611, the Court grants 3M's motion for essentially the same reasons stated above.

B. Moldex Metric's motion

Moldex Metric moved for summary judgment that 3M's assertion of the '693 Patent against Moldex Metric's BattlePlug was objectively baseless and lacked probable cause. For the reasons stated above, the Court grants Moldex Metric's motion. *See Porous Media*, 186 F.3d at 1079-80 & n.4.

III. CONCLUSION

In short, the Court grants in part and denies in part 3M's Motion for Partial Summary Judgment and/or Judgment on the Pleadings, grants Moldex Metric's Motion for Partial Summary Judgment on Elements of its Sham Litigation and Malicious Prosecution Claims, and denies Moldex Metric's Motion for Summary Judgment on 3M's "Unclean Hands" Affirmative Defense. The Court will issue a separate order that is consistent with this Memorandum.

Dated: December 9, 2016

s/ Joan N. Ericksen
JOAN N. ERICKSEN
United States District Judge